

Neriere emphana* (Walckenaer, 1841), a linyphiid spider new to Britain (Araneae: Linyphiidae)*Ian K. Dawson**100 Hayling Avenue,
Little Paxton,
St Neots, Cambs., PE19 6HQ

and

Peter Merrett6 Hillcrest,
Durlston Road,
Swanage, Dorset BH19 2HS**Summary**

The linyphiid spider *Neriere emphana* (Walckenaer, 1841) is described and illustrated as new to Britain, and its habitat and distribution are discussed.

Introduction

On the morning of 22 August 2000, at the end of a long weekend on the Isle of Wight, IKD and his wife Debra went for a walk on Mottistone Down (National Trust) and in the adjacent Brighstone Forest/Westover Down (Forestry Commission) in the southwestern part of the island. They stopped at a couple of sites in the forest to sieve leaf litter and beat the trees, but did not look intensively for spiders.

At over 500 ha Brighstone Forest is the largest area of woodland on the Isle of Wight. It has been managed by the Forestry Commission since 1919 and is a mixed woodland with extensive planting and a network of public footpaths. One of the trails, “The Jubilee Walk”, starting from the National Trust car park at SZ 420845, follows an east-west running forest track which separates a strip of rather open storm-damaged woodland on an exposed ridge adjacent to the south-facing chalk grassland of Mottistone Down from an area of rather dark and gloomy mature beech (*Fagus sylvatica* L.) forest with scattered yew (*Taxus baccata* L.) on Westover Down. Large areas of the forest were devastated by the severe storm of 16 October 1987, but the beech forest lies on a slope which falls away to the north and was thus protected from the storm damage. Fringing the forest track on the north side there are also some sycamore (*Acer pseudoplatanus* L.) and a single shaded holly (*Ilex aquifolium* L.) at SZ 413848 at about 160 m a.s.l.

A branch of the holly tree was beaten, but it produced only a few specimens which were thought to be *Linyphia triangularis* (Clerck), of which a couple of females were kept. It was not until they were checked about a week later that it was realised that one of these specimens was not *L. triangularis*. Reference to Roberts (1995) and Heimer & Nentwig (1991) showed that it matched all the key characters for *Neriere emphana* (Walckenaer), and PM confirmed the identification. The photograph of the living spider in Jones (1983) also shows well the distinctive abdominal pattern, though the flash seems to have over-emphasised the whiteness of the abdomen. Had the

specimen been recognised in the field, probably others could have been found.

Both sexes are described and figured here from French material and from the British female. All measurements are in mm.

Description***Neriere emphana* (Walckenaer, 1841) (Figs. 1–4)**

Linyphia emphana Walckenaer, 1841: 246 (descr. ♀); Simon, 1929: 630, 743, figs. 962–964 (♂♀); Blauvelt, 1936: 118, pl. 5 fig. 36, pl. 6 figs. 39–42 (♂♀); Bonnet, 1957: 2500.

Prolinyphia emphana: Wiehle, 1956: 302, figs. 493–499 (♂♀).

Linyphia (Prolinyphia) emphana: Miller, 1971: 220, figs. 11–13 (♂♀).

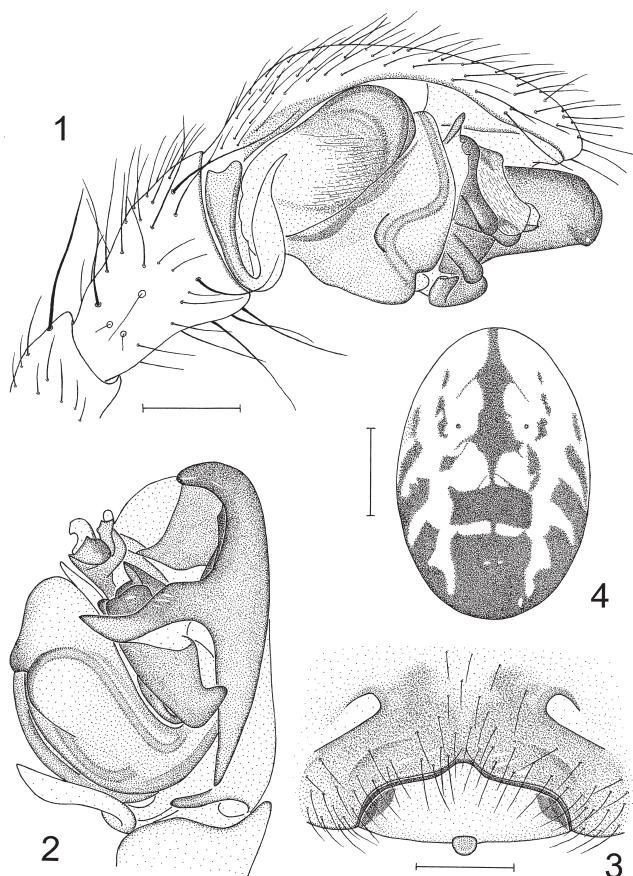
Linyphia (Neriere) emphana: Jones, 1983: 298–299 (♀).

Neriere emphana: Helsdingen, 1969: 210, figs. 294–304 (♂♀); Heimer & Nentwig, 1991: 222, fig. 598 (♂♀); Roberts, 1995: 368, unnumbered figs. and pl. 32 fig. 5 (♂♀).

Material examined: GREAT BRITAIN: Isle of Wight, Brighstone Forest, grid ref. SZ 413848, beaten from holly, 1♀, 22 August 2000, leg. & coll. I. K. Dawson. FRANCE: *Pyrénées-Orientales*: Col de Jou, 1100 m, grass and stones, 1♂, 9 June 1982, leg. & coll. J. & F. Murphy 10521; Nohèdes, 1000 m, shrubs, 2♀, July 1991, leg. & coll. J. & F. Murphy 19851.

Female: Total length ($n=3$) 4.6–5.5. Carapace length 1.6–2.4, width 1.3–1.6, abdomen length 2.9–3.2. Carapace yellow-brown, with weak grey median band from eyes to fovea, and diffuse grey lateral band. Chelicerae light brown. Sternum dark brown suffused with black. Abdomen dorsally white with dark brown to black pattern as in Fig. 4, darker posteriorly. Dark pattern extends as diagonal stripes laterally, interspersed with thin white stripes. Ventrally dark brown with large white spot in front of spinners and band of small white blotches between spinners and epigastric furrow; ill-defined narrow pale band laterally; opercula light brown. Legs yellow-brown, except metatarsi and tarsi light brown. Femur I with 4–5 spines, II with 3 spines, III–IV with 2 spines. Tm I 0.12–0.13. Palp yellow-brown, except tarsus light brown. Epigyne (Fig. 3): opening broad, with prominent anterior notch in midline. With pair of deep lateral depressions anteriorly.

Male: Total length ($n=1$) 4.4. Carapace length 2.0, width 1.5, abdomen length 2.4. Carapace and chelicerae orange-brown, darker markings very faint. Sternum yellow-brown suffused with black. Abdomen dorsally white or pale grey with four black bars in posterior third, with weak darker markings like those of female in midline of anterior two-thirds. Laterally with three oblique black bars. Ventrally pale, except for black band enclosing white spot in front of spinners. Epigastric region distinctly swollen. Legs yellow-brown, metatarsi and tarsi slightly darker. Femora I–II with 4–5 spines, III–IV with 3 spines. Tm I 0.12. Palp (Figs. 1–2): yellow-brown, cymbium light brown. Paracymbium with pale distal arm flattened and broadened, ending in curved point. Lamella large and broad, protruding beyond tip of cymbium, lateral arm long with tip visible as small hook in lateral view.



Figs. 1–4: *Neriere emphana*. **1** Right male palp, ectal view (Col de Jou); **2** Ditto, ventral view; **3** Epigyne, ventral view (Nohèdes); **4** Female abdomen, dorsal view, slightly from behind (Isle of Wight). Scale lines=0.2 mm (1–3), 1.0 mm (4).

Diagnosis and relationships: *Neriere emphana* belongs to the *N. emphana* group of Helsdingen (1969), which also includes the Nearctic species *N. litigiosa* (Keyserling). Among British species *N. emphana* is closest to *N. radiata* (Walckenaer) and *N. peltata* (Wider). The dorsal abdominal pattern of *N. emphana* is distinctive, having a much narrower dark median stripe anteriorly, and *N. radiata* is also easily distinguished by the femora being spineless. The epigyne of *N. emphana* can be distinguished by the broad opening with anterior median notch and by the pair of deep anterior lateral depressions. The epigyne of *N. peltata* also has depressions, but they are shallower and more lateral in position. The male palp of *N. emphana* is easily distinguished by the broad flattened distal arm of the paracymbium, curving anteriorly at its tip, and by the long broad lamella projecting beyond the end of the cymbium. The swollen epigastric region of the male is also distinctive.

Distribution and habitat

Neriere emphana is widespread throughout Europe, reaching its northern limits in Sweden and southern

Finland, and has been found across northern Asia to China, Korea and Japan (Helsdingen, 1969; J. A. Murphy, pers. comm.). It is apparently restricted to woodland, both coniferous and deciduous, and is found on bushes and the lower branches of trees, often in dark places and sometimes associated with beech. The sheet webs are flat or slightly domed, but never as strongly as in *N. radiata* (Walckenaer), and are built well above ground level. Adults are found from June to August (Helsdingen, 1969).

The habitat of the single specimen taken in the Isle of Wight agrees well with this description, as it was collected from a holly tree largely surrounded by beech in a rather dark situation. The species is probably a relatively recent colonist on the Isle of Wight. Frank Millidge carried out much of his early collecting on the island in the 1940s and 1950s, and Paul Hillyard also looked for spiders in Brighstone Forest in the early 1980s when searching for *Episinus maculipes* Cavanna (Hillyard, 1983). It is hard to imagine that such a distinctive species would have been overlooked if it had been present then.

Acknowledgements

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